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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/603,515	06/23/2000	Andrew P. Foray	P/3879-12	9913

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EXAMINER

KARMIS, STEFANOS

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 08/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/603,515

Applicant(s)

FORAY ET AL.

Examiner

Stefano Karmis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 13
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This communication is in response to Applicant's amendment filed on May 29, 2003.

Status of Claims

2. Claims 1, 5, 7, 8, 12, 19, 20, 23 and 24. Claims 1-24 are under prosecution in this application.

Summary of this Office Action

3. Applicant's amendment filed on May 29, 2003 has been fully considered, and discussed in the next section below or within the following rejection are not deemed to be persuasive. Therefore, claims 1-24 are rejected as being unpatentable over the art cited below, and Applicant's request for allowance is respectfully denied.

Response to Applicant's Amendment

4. The examiner acknowledges Applicant's arguments in the remarks with respect to the 35 U.S.C. 103 rejection and therefore withdraws the previous rejection. Any arguments with respect to the claims are considered moot in view of the new grounds of rejection.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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9. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Togher et al. (hereinafter Togher) U.S. Patent 6,014,627 in view of Silverman et al. (hereinafter Silverman) U.S. Patent 5,924,082.

Claims 1 and 24, Togher teaches a method and system for anonymous trading that can identify the best bids and offers from those counterparties with which each client site is currently eligible to deal... (column 2, lines 16-18). Buying and selling is facilitated through a communication network (column 4, lines 66-67).

An arbitrator node is used to identify potential matches between buyers and sellers (column 5, lines 19-20). There are a plurality of arbitrators acting as matching engines that are connected to the communication network, each arbitrator is connected to the other plurality of arbitrators and also having means to a market distributor as well as trader terminals (Figure 1). The market distributors, which relay current market data (column 5, lines 11-12) are preferably supplemented by the arbitrator node performing criteria for matching buyers and sellers (column 5, lines 18-21). The permanent communication link between arbitrators allows for them to distribute price quotes to other devices so that traders in various regions can get price messages (column 5, 47-49).

Togher teaches that the arbitrators can perform a match independently while other arbitrators are simultaneously processing deals. In a passive mode, the arbitrators can provide price quotes to trader terminal from different Trade Regions (column 5, lines 40-50).

Togher fails to teach a system where only one of said matching engines is actively performing price matching while other matching engines are passive. Silverman teaches

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a negotiated matching system that identifies potential counterparties to a transaction to facilitate trading (column 1, lines 12-23). The matching system of Silverman allows for matching engines to be passive and to distribute information from the matching computer to the remote terminals while the matching computer performs all price matching (column 6, lines 26-67). Therefore it would have been obvious at the time of the Applicant's invention to modify the matching technique as taught by Togher to include the teachings of Silverman because it is an efficient proven manner of matching buyers and sellers with one matching computer and allowing other nodes to be passive and distribute information in a trading environment as is taught by the Applicant.

Claims 2-3, Togher teaches switching active matching engine to another matching engine based on price quotation messages from certain geographic location of a trading transaction.

Claim 4, Togher fails to teach comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine. Official Notice is taken that switching nodes from active to passive is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to allow for comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine because it provides for a more

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efficient matching when only one matching engine may be active at any particular time, basing the criteria on load, a common factor in determining active and passive engines.

Claim 5, Togher teaches a communication network where the matching engines are arranged as a clique (figure 1).

Claims 6 and 7, the workstations on the trader floor are each connected to a market access node and each market access node is connected to at least one of a plurality of arbitrators acting as matching engines (figure 1). The market access nodes maintain “transaction records, credit limits, and other confidential information originating with its associated Trading Floor” (column 5, lines 6-8).

Claim 8, Togher teaches multiple market distributors that are connected in a communication network (figure 1). The market distributors are indirectly connected to other market distributors throughout the communication network.

Togher fails to teach a market distributor on the network between an existing market distributor and a trader terminal, thus having two market distributors in direct connection. Official Notice is taken that adding to a network is old and well known in the art. It would have been obvious to anyone of ordinary skill in the art at the time of the Applicant’s invention to add a market distributor on the network between an existing market distributor and a trader terminal because adding to a network is common to achieve desired network architecture.

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Claim 9, the market access nodes are each connected to trader terminals throughout each branch of the network. The access nodes are responsible for “distributing market information” (column 2, lines 44-45) to the trader terminals.

Claim 10, the matching engines processes deals (column 5, line 42), it is preferable able to “automatch” a bid price (column 7, line 8) and they broadcast price quotes to traders through the communication network (column 5, lines 48-49).

Claim 11, “it is preferable to have more than one arbitrator, with each arbitrator having primary responsibility for trades initiated by Market Makers in the arbitrator’s own Trading Region, and being connected to all the market access nodes and market distributors of the Trading Region as well as to the other arbitrators in other trading regions...(column 5, lines 31-36).

Claims 12 and 23, Togher teaches a method and system for “anonymous trading that can identify the best bids and offers from those counterparties with which each client site is currently eligible to deal...(column 2, lines 16-18).

A plurality of workstations is each connected to the communication network (figure1). Each workstation having a display that contains “information which a typical trader would consider essential to trading...” (Column 6, lines 41-44).

An arbitrator node is used to identify potential matches between buyers and sellers (column 5, lines 19-20) as well as to communicate with trade terminals items such as price quotes (column 5, lines 47-49). There are a plurality of arbitrators acting as

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matching engines that are connected to the communication network, each arbitrator is connected to the other plurality of arbitrators and also having means to a market distributor as well as trader terminals (Figure 1). The market distributors, which relay current market data (column 5, lines 11-12) are preferably supplemented by the arbitrator node performing criteria for matching buyers and sellers (column 5, lines 18-21) and for processing deals (column 5, line 42).

Togher teaches that the arbitrators can perform a match independently while other arbitrators are simultaneously processing deals. In a passive mode, the arbitrators can provide price quotes from different Trade Regions (column 5, lines 40-50).

Togher fails to teach a system where only one of said matching engines is actively performing price matching while other matching engines are passive. Silverman teaches a negotiated matching system that identifies potential counterparties to a transaction to facilitate trading (column 1, lines 12-23). The matching system of Silverman allows for matching engines to be passive and to distribute information from the matching computer to the remote terminals while the matching computer performs all price matching (column 6, lines 26-67). Therefore it would have been obvious at the time of the Applicant's invention to modify the matching technique as taught by Togher to include the teachings of Silverman because it is an efficient proven manner of matching buyers and sellers with one matching computer and allowing other nodes to be passive and distribute information in a trading environment as is taught by the Applicant.

Claim 13, the matching engines provide an efficient communication network for broadcasting price quotes to all traders in other Trading Regions (column 5, lines 48-49).

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Claims 14-15, Togher teaches switching active matching engine to another matching engine based on price quotation messages from certain geographic location of a trading transaction.

Claim 16, Togher fails to teach comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine. Official Notice is taken that switching nodes from active to passive is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to allow for comparing the number of price messages received from the active matching engine to price messages received from passive matching engines and allowing the matching engine with greatest number of price messages to become the active matching engine because it provides for a more efficient matching when only one matching engine may be active at any particular time, basing the criteria on load, a common factor in determining active and passive engines.

Claims 17 and 18, Togher fails to teach sending a message between active and passive matching engines o throughout the network regarding the status of switching engines from active to passive. Official Notice is taken that providing information for changes in a network is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to modify the teachings of Togher to include sending a message between active and passive matching engines o throughout the

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network regarding the status of switching engines from active to passive because the information is helpful in understanding how the system is operating and where price settlement is being performed.

Claim 21 and 22, each workstation acts as a trader terminal (figure 1) and supports a single trader trading in a single currency pair (column 6, lines 41-42).

Claims 19 and 20, Togher fails to teach comparing attributes such as a message sequence number to ensure that all trading in the trading book is complete before a matching engine may be switched from active to passive. Official Notice is taken that the completion of jobs before altering a system is old and well known in the art. Therefore it would have been obvious at the time of the Applicant's invention to modify the teachings of Togher to include comparing attributes such as a message sequence number to ensure that all trading in the trading book is complete before a matching engine may be switched from active to passive because all transactions need to be completed before the matching engine switches to a passive state and can no longer perform price settlement.

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Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Silverman et al. US Patent 5,136,501 Aug. 4, 1992. Anonymous Matching System.

b) Ordish et al. US Patent 5,727,165 Mar. 10, 1998. Offer Matching System Having Timed Match Acknowledgement.

c) Luke et al. US Patent 6,131,087 Oct. 10, 2000. Method for Automatically Identifying, Matching, and Near-Matching Buyers and Sellers in Electronic Market Transactions.

d) Hawkins et al., US Patent 6,247,000 Jun. 12, 2001. Method and system for confirmation and settlement for financial transactions matching.

e) Howorka US Patent 6,282,521 Aug. 28, 2001. Anonymous Trading System With Improved Quote Input Capabilities.

f) Kim et al. US Patent 6,359,885 Mar. 19, 2002. Multi-Channel Packet Switching Apparatus Having Traffic Flow Controlling and Checking Functions.

g) Bare US Patent 6,473,403 Oct. 29, 2002. Identify Negotiation Switch Protocol.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stefano Karmis whose telephone number is (703) 305-8130. The examiner can normally be reached on M-F: 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on (703) 308-1065. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-1113.

Respectfully Submitted
Stefano Karmis
August 14, 2003



HANI M. KAZIMI
PRIMARY EXAMINER